



CITY OF HOWARD LAKE

PARKS AND PLANNING COMMISSION

*The City of Howard Lake strives to build upon its good neighbor traditions –
A welcoming community for all, supported by vibrant and engaged businesses and community organizations, involved
citizens, and diverse amenities that provide a well-rounded quality of life.*

**NOTE: In order to accommodate in-person meeting, we will hold the meeting at the South Shore Event Center
located above Howard Lake Wine & Spirits | 733 6th Street.**

TENTATIVE AGENDA February 10, 2021 – 5:00 pm

- A. **CALL TO ORDER**
- B. **APPROVAL OF AGENDA**
Any additions, deletions, modifications to the agenda will be done at this time.
- C. **CONSIDER APPROVAL OF MINUTES**
 - a. January 13, 2021 PPC Meeting Minutes
- D. **PRESENTATIONS, PUBLIC HEARINGS & RELATED APPROVALS**
 - a. Curt Forst – Howard Lake Watershed Alliance
- E. **NEW BUSINESS**
 - a. Consider Resolution PPC 21-01 Approving the Submission of the Local Trail Grant Application
- F. **OLD BUSINESS**
- G. **ADJOURN**



CITY OF HOWARD LAKE

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HOWARD LAKE PARKS AND PLANNING COMMISSION

South Shore Event Center – 731 6th Street

January 13, 2021 – 5:00 pm

MEETING MINUTES

MEMBERS PRESENT

Jean Schmidt
April Debner
Jason Deiter
Gene Gilbert
Barb Guenigsman
Vern Kleve
Molly Hibbard

MEMEBERS ABSENT

OTHERS PRESENT

Nick Haggenmiller, City Administrator
Meagan Theisen, Assistant City Administrator
Nate Sparks, City Planner

A. CALL TO ORDER

Schmidt called the meeting to order at 5:10 p.m.

B. APPROVAL OF AGENDA

The agenda was approved as presented.

C. APPROVAL OF MEETING MINUTES

Commissioner Kleve moved to approve the October 20, 2020 PPC Meeting minutes. The motion was seconded by Commissioner Debner and passed unanimously.

D. PRESENTATIONS, PUBLIC HEARINGS AND RELATED APPROVALS

a. **Dynamic Signs – City Sign Ordinance**

The Sign Ordinance discussion has been continued until summer/fall.

** The commission originally scheduled the continuation for November 11th. It was realized after the meeting that November 11th is Veteran's Day, a City Holiday. It was brought to the commission again on January 13th, 2021 and has been tabled until summer/fall 2021.

E. NEW BUSINESS

a. **Welcome New Commissioner Molly Hibbard**

New Howard Lake Resident introduced herself. She is excited to be in Howard Lake

Kleve moved to approve PPC applicant Molly Hibbard as a member of the commission. The motion was seconded by Commissioner Deiter and passed unanimously.

b. Consider Annual Organizational Appointments & Declarations

Long time Commission Chairperson, Schmidt, stepped down as Chair, but will remain on the board. Commissioner Debner expressed interest in the Chair position and Commissioner Deiter expressed interest in the Vice Chairperson position. Assistant City Administrator will remain the PPC Secretary.

Commissioner Schmidt moved to approve Debner as the PPC Chairperson and Deiter as the Vice Chairperson. The motion was seconded by Guenigsman and passed unanimously.

The Commission also reviewed the 2021 Meeting Dates and agreed to keep the meetings on the 2nd Wednesday of each month at 5 pm.

c. Comprehensive Plan Update Introduction

City Planner Sparks provided an introduction to the Comprehensive Plan update. Highlighting the importance of the plan to the City and its future.

The Commission was asked to review the Comprehensive Plan from 2001 and the 2011 Park and Trail Plan.

F. ADJOURN

The Parks and Planning Commission meeting adjourned at 6:23 p.m. on a motion by Commissioner Kleve seconded by Commissioner Hibbard.



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*The City of Howard Lake strives to build upon its good neighbor traditions –
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Howard Lake Parks and Planning Commission Resolution Supporting the Submission of the Local Trail Connection Grant Application

PPC 20-01

WHEREAS, the City of Howard Lake seeks to deliver high quality infrastructure in cost effective manner while also providing diverse amenities that enhance resident's quality of life, and;

WHEREAS, the proposed trail will enable multi-modal transportation route along Wright County Highway 7, Lake Howard and establish significant connectivity for roughly 300 homes, an assisted living facility, community park and the downtown business district, and;

WHEREAS, the 2001 Comprehensive Plan, the 2011 Parks & Trail Plan and the Wright County Trail Plan identifies this pedestrian trail connection in this location to further promote the vitality of our parks and trail system city and county wide, and;

WHEREAS, the proposed trail would encourage further recreation and enjoyment adjacent to our namesake lake, and PWA water structures, and;

WHEREAS, the City has completed an engineer's Feasibility Study to ascertain proposed scope, preliminary design and estimated costs; and,

WHEREAS, Wright County and the City of Howard Lake have entered into a joint cost share agreement with the direct goal of constructing this trail connection in 2021, and;

WHEREAS, the total estimated cost for this project is \$680,000, of which the City is seeking \$150,000 or 22 percent of the total project cost.

NOW THEREFORE BE IT RESOLVED, the City of Howard Lake hereby assures the Howard Lake Recreational Trail will be maintained for a period of no less than 20 years.

PASSED AND ADOPTED BY PARKS AND PLANNING COMMISSION OF THE CITY OF HOWARD LAKE THIS 10TH DAY OF FEBRUARY, 2021.

APRIL DEBNER – CHAIRPERSON

ATTEST:

NICK HAGGENMILLER - CITY ADMINISTRATOR



HOWARD LAKE CITY COUNCIL MEETING

December 8, 2020

AGENDA ITEM: Consider Entering Cooperative Agreement for CSAH 7 Trail/Widening Project

SECTION: New Business

FROM: Meagan Theisen, City Administrator
Josh Halverson, City Engineer

BACKGROUND: The Howard Lake City Council directed staff to move forward with a cost share agreement with Wright County on October 20, 2020 to include widening the shoulder on CSAH 7 to create a trail from Lions Park to Imhoff Ave. The County has included the CSAH 7 Trail Project and intends to complete the construction in 2021.

The City will administer a contract for the whole CSAH 7 project and will be reimbursed by the County for the road portion. According to the feasibility study completed by Bolton & Menk, the total cost of the project would be approximately \$678,942 with the City being responsible for about \$363,000 of it. These figures are subject to final bid prices.

DECISION MAKING METRICS: The City believes the addition of this trail would be extremely beneficial, in that it would connect the north side of the lake and the Terner Trails development to downtown Howard Lake, nearly 300 households.



FINANCIAL: The City would be responsible for approximately \$363,000 of the total project. This would be subject to final bid prices received for the total project.

Staff is currently investigating various financing mechanisms for this project including bonding, use of reserves and grant sources.

- Unless significant reductions are made to proposed FY21 projects, the full use of reserves is not advisable.
- Bonding for the City's portion of the project would be about \$30,000/year for 15 years.
- Staff is exploring a DNR Trail Grant. It is highly competitive. However, in quick review of the application and discussion with DNR staff, we may have at least some circumstances that make funding more favorable.

LEGAL: The agreement is legally binding to the terms of the agreement and has been drafted by the Wright County Attorney. By signing we are not guaranteeing the delivery of the project, but rather the terms of the project. If bid prices were unfavorable or some other outside factor occurred, the County would revert to a simple pavement preservation project.

STRATEGIC PLAN:

- Delivery Highway Quality Services & Reliable Infrastructure
- Provide Diverse Amenities that Enhance Quality of Life
- Ensure a Safe & Healthy Community
- Develop a Livable Community for All

COUNCIL ACTION REQUESTED: Approve the Funding Participation and Construction Agreement with Wright County.

ATTACHMENTS:

1. Feasibility Study
2. Funding Participation and Construction Agreement NO 20-59
3. 2021 Proposed Construction and Right of Way
4. Wright County 2021-2025 5-Year Plan



Real People. Real Solutions.

City of Howard Lake

CSAH 7 Trail Project Feasibility Report

BMI Project No. W14.122467

Submitted by:

Bolton & Menk, Inc.
2040 Highway 12 East
Willmar, MN 56201
P: 320-231-3956
F: 320-231-9710



Certification

Feasibility Report

For

CSAH 7 Trail Project

City of Howard Lake, Minnesota

W14.122467

9-11-2020

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

By:



Joshua J. Halvorson, P.E.
License No. 46291

Date: 10-02-2020

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Figure A1: CSAH 7 Typical Sections

Figure A2: CSAH 7 Construction Typical Sections

Figure A3: Proposed CSAH 7 Layout

Appendix C: Wright County Crosswalk Forms

Appendix D: Pavement Design

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I. PROJECT INTRODUCTION

A. PURPOSE

The purpose of this Feasibility Report is to evaluate the addition of a trail along CSAH 7 to connect the existing trail segments of the Lions Park, Terning Trails, and Imhoff Avenue that are currently not continuous. This is for bicycle and pedestrian safety along the County Highway 7 roadway that has seen an increase in such recreational use.

The City would intend to complete this project in coordination with Wright County's 2022 Pavement Preservation project along CSAH 7 from US 12 to Maple Lake. This Feasibility Report includes the existing conditions evaluation, preliminary design review, and anticipated total project costs to construct a trail along CSAH 7 in 2022.

B. SCOPE

The proposed trail will be located adjacent to CSAH 7 on the east side of Howard Lake and extends from BNSF Railroad's north Right-Of-Way line near Lions Park to Imhoff Ave SW. The construction in conjunction with Wright County's 2022 Pavement Preservation project along CSAH 7 would isolate the trail along the Lake's shoreline with widening of the road. A map of the proposed project location is shown in **Figure 1**.



Figure 1: CSAH 7 Trail Project Location Map

II. EXISTING CONDITIONS

A. TRAIL

There is currently no trail that exists along CSAH 7 from US 12 to Imhoff Ave SW. However, there are existing trails located at the limits of the proposed project near Lions Park, 1st St E (Terning Trails), and Imhoff Ave SW (Lake Ridge). There is an 8-foot wide paved trail along the west side of CSAH 7 that crosses the BNSF Railroad tracks and connects to the parking lot at Lions Park as shown in **Figure 2** below. This existing trail segment runs from Lions Park and along the north side of US 12 and connects to downtown Howard Lake.



Figure 2: Lions Park Trail

There is a 10-foot wide paved shoulder trail along the south side of 1st St E that ends at the intersection of CSAH 7 and 1st St. E and is shown in **Figure 3**. This trail extends to the Terning Trail Development trail system. This trail transitions from a paved shoulder trail to a separated shared-use bituminous trail approximately 1000 feet east of CSAH 7.



Figure 3: 1st St. E Trail

There is an existing 6-foot wide separated shared-use bituminous trail along the north side Imhoff Ave SW and is shown in **Figure 4**. This trail extends north to the intersection of Ash Ave.



Figure 4: Imhoff Ave SW Trail

B. STREETS

The bituminous pavement on CSAH 7 was reconditioned and repaved by Wright County in 2006. The existing typical section is shown in **Appendix B** on **Figure A1**. The pavement section is 3.5-inches of bituminous pavement, 10-inches reclaimed bituminous aggregate base, and 3-inches of aggregate base. The existing width of CSAH 7 is approximately 24 feet wide of bituminous pavement for two 12-foot driving lanes. The shoulders along CSAH 7 between US 12 and 1st St E are 2-foot wide gravel shoulders on both sides, and from 1st St E to Imhoff Ave there are gravel shoulders that vary in width from 0 feet to 2 feet wide. On both sides of the road, the slopes are steep and are between a 1:4 to 1:2 slope. The existing Right-Of-Way along CSAH 7 varies in width between 66 feet wide to approximately 100 feet wide. There is also a 10-foot wide Permanent Utility Easement along the east side CSAH 7 where the Right-Of-Way is only 66 feet wide. The posted speed limit for CSAH 7 is 40 MPH. The existing pavement is in fair condition and has been maintained by crack sealing and minor patching as shown in.



Figure 5: CSAH 7 Existing Road Condition

C. WATERMAIN

The existing watermain along CSAH 7 is 8-inch PVC and was constructed in 1994 and is in good condition. The location of the existing watermain is shown in **Appendix B** on **Figure A3**. The watermain is on the east side of CSAH 7 with the hydrants installed approximately 8 feet from the edge of the road. Water services that are 1-inch copper pipe were also installed for all properties along CSAH 7.

D. SANITARY SEWER

The existing sanitary sewer along CSAH 7 is 10-inch PVC and was constructed in 1994 and is in good condition. The location of the existing sanitary sewer is shown in **Appendix B** on **Figure A3**. The sanitary sewer flows from Imhoff Ave along the east side of CSAH 7 to a lift station located at the intersection of CSAH 7 and 1st St E. The lift station pumps the collected sewage through a 4-inch PVC forcemain and then through a 6-inch PVC forcemain along the west side of CSAH 7 to a manhole in the parking lot at Lions Park. This forcemain is also in good condition. Sanitary services that are 4-inch PVC pipe were also installed for all properties along CSAH 7.

E. STORM SEWER

There is currently a drainage ditch as well as culverts that cross driveways of private properties. These pipes are of various sizes and material. Drainage along the west side of CSAH 7 flows toward Howard Lake, and drainage along the east side of CSAH 7 flows either south along an existing drainage ditch, or through an existing drainage easement in yards until it reaches a wetland south of 1st St E. This wetland drains to the east and ultimately to Dutch Lake. Additionally, record drawings from 1940 indicate the presence of 18-inch and 24-inch culverts crossing CSAH 7 in the areas of Stations 21+00 and 28+50 in **Appendix B** on **Figure A3**. It is unknown if these culverts are present and in-use.

F. PRIVATE UTILITIES

Along both sides of CSAH 7 there are existing underground gas mains, electric, fiber optic, and telecommunication cables, manholes, and access pedestals/cabinets as well as overhead electric lines near Imhoff Ave SW. **Figure 6** shows the proximity of some of these private utility structures to the edge of the existing road.



Figure 1: Existing Private Utilities at 1st St. E Intersections

III. PROPOSED CONDITIONS

A. TRAIL IMPROVEMENTS

The proposed typical section for CSAH 7 and the trail is shown in **Appendix B** on **Figure A1**. The MnDOT Road Design Manual requires all paved shoulders to have a minimum bituminous thickness of 3-inches. The proposed trail along CSAH 7 will be on the west side of CSAH 7 and will extend from the northern extents of the parking lot at Lions Park to the intersection of Imhoff Ave SW and CSAH 7 as shown in **Appendix B** on **Figure A3**.

According to the MnDOT Bicycle Facility Design Manual, based on current and future traffic volume data, posted speed limit, available Right-Of-Way and Easements, and topography, the proposed trail will be an 8-foot wide paved shoulder. Separated trail options are not a viable option specifically due to the existing Right-Of-Way widths, environmental conditions, and topography. Within the 8-foot paved shoulder, there will be a 2-foot wide buffer zone between the outer edge of the driving lane and the edge of the intended 6-foot wide travel path of bicycles and pedestrians along the trail. There will be trail crossings at both 1st St E and Imhoff Ave SW where the proposed trail will connect with existing trails. According to the Wright County Marked Crosswalk Policy, the proposed CSAH 7 crossing and signage at 1st St E will need to be permitted and approved by Wright County using the forms in **Appendix C**. Additionally, a Rectangular Rapid Flash Beacon (RRFB) system will be installed at the intersection of 1st St. E. in order to enhance pedestrian visibility and safety while crossing CSAH 7.

B. STREET IMPROVEMENTS

Wright County had intended their 2022 Pavement Reservation project to reclaim the existing bituminous surface and repave to meet a 10-ton design road consistent with Minnesota State Aid standards. Design forms included in **Appendix D** were used to determine future traffic volumes and a required pavement section to meet a 10-ton design road. For purposes of pavement design, an assumed common soil type for the area of a silty clay loam was used. Existing traffic counts for pavement design from 2016 were estimated at 2,100 average daily traffic (ADT). The proposed pavement section and typical section for CSAH 7 and the trail is shown in **Appendix B** on **Figure A1**. To meet the requirements of a 10-Ton road design, the bituminous pavement will have a total thickness of 4-inches with 16-inches of aggregate base. The CSAH 7 driving lanes will be narrowed to 11-feet wide per lane, and a 2-foot wide gravel shoulder on the east side of CSAH 7 will be maintained. This width change is consistent with Minnesota State Aid standards.

Due to the proximity of the existing west edge of CSAH 7 and the existing slope towards the shoreline of Howard Lake, the centerline alignment of CSAH 7 will be shifted to the east in order to accommodate the proposed 8-foot wide paved shoulder/path along the west side of CSAH 7. The existing slope west of CSAH 7 will be minimally impacted near the existing edge of the road, and the shoreline of Howard Lake will not be disturbed. **Figure A2** and **Figure A3** in **Appendix B** illustrate the proposed construction typical details, road realignment and trail improvements. There will be “No Parking” signs along the west side of CSAH 7 to ensure the trail is not obstructed by parked vehicles. Additionally, there will be warning signs for the trail crossing at 1st St E. The posted speed limit for CSAH 7 will remain 40 MPH within the path corridor. All improvements will be within the existing Right-Of-Way or Utility Easements and there will be no need to acquire additional Right-Of-Way.

C. WATERMAIN IMPROVEMENTS

There are no proposed watermain improvements related to the 8-inch PVC watermain.

However, due to their proximity to the edge the proposed road, existing hydrants will need to be relocated farther to the east of CSAH 7 as shown in **Appendix B** on **Figure A3**. This will allow CSAH 7 to be widened to accommodate the paved trail while maintaining a safe distance between the edge of the road and the hydrants. There will be scheduled watermain shut-downs that will need to occur in order for the hydrants to be relocated.

D. SANITARY SEWER IMPROVEMENTS

There are no planned improvements to the existing sanitary sewer. Due to CSAH 7 becoming wider and the alignment changing, the manholes may need to be adjusted to meet the new road or ditch grades and elevations.

E. STORM SEWER IMPROVEMENTS

The proposed storm sewer improvements include installing new culverts through driveways into private properties as well as regrading the drainage ditch along the east side of CSAH 7 between 1st St E and Imhoff Ave SW. If centerline culverts are identified and in-use, the eastern ends will need to be extended to match the new ditch slope. Drainage patterns will ultimately remain unchanged.

F. PRIVATE UTILITIES

Private utility owners will be notified of the proposed improvements as well as proposed utility and grade changes. Conflicts with the proposed road or utility improvements will result in the private utility owner relocating their facility to accommodate the proposed improvements.

IV. ESTIMATED COSTS

A. FINANCING

Wright County is intending on utilizing Municipal State Aid Funds to assist in financing the County's portion of the proposed project costs. Financing options for costs that the City will be responsible for are still being investigated. Funding considerations that could be utilized to assist financing the City's portion of the project costs include MNDNR Trail Grant Program, MNDOT ATP Grant Program, and Sidewalk Improvement District.

B. PROJECT COSTS BREAKDOWN

Since portions of the project would be accomplished under a Cooperative Agreement with Wright County, the project costs for realigning CSAH 7 and adding a trail would be shared between the two jurisdictions. The County's level of cost participation along CSAH 7 would generally be based on Wright County's Cost Participation Policy as shown in **Table 1**.

TABLE 1: COST PARTICIPATION		
ITEM	WRIGHT COUNTY PARTICIPATION	CITY PARTICIPATION
Clearing & Grubbing	0%	100%
Excavation/Grading	0%	100%
Engineered Borrow	0%	100%
Class 5 Aggregate Base	0%	100%
Culverts	0%	100%
Bituminous Base Course	100%	0%
Bituminous Wear Course	100%	0%
Municipal Utility Adjustment	0%	100%
Bituminous Trail	0%	100%
Rectangular Rapid Flash Beacon (RRFB)	0%	100%
Mobilization	Pro-Rated	Pro-Rated
Traffic Control	Pro-Rated	Pro-Rated
Erosion Control	Pro-Rated	Pro-Rated

The estimated costs identified are based on projects similar in nature and do not represent actual costs. **Table 2** below summarizes the estimated project cost.

TABLE 2: COST SUMMARY			
ITEM	WRIGHT COUNTY	CITY	TOTAL
Construction Cost	\$238,774.00	\$275,576.00	\$514,350.00
Contingency (10%)	\$23,877.40	\$27,557.60	\$51,435.00
Legal, Engineering, Administration Fees (20%)	\$53,183.79	\$59,973.21	\$113,157.00
Total Project Cost	\$315,835.19	\$363,106.81	\$678,942.00

A contingency factor has been included to account for unaccounted design and construction items not included, or variances in unit prices due to market fluctuations. Estimated legal, engineering, and administration costs are similarly represented. Actual costs would be determined through the competitive bid process with Engineered construction documents for the proposed work. A detailed preliminary quantity and cost estimate for the project is included in **Appendix A**.

V. SCHEDULE

Discussions with Wright County and the City have resulted in a mutual understanding of a schedule to construct the trail. **Table 3** below summarizes a schedule for to facilitate the proposed improvements completed by both identities.

TABLE 3: PROPOSED IMPLEMENTATION SCHEDULE	
Item	Completion Date
Council Review of Engineering Report	September, 2020
Council Requests Expanding Scope to Wright County	October, 2020
Wright County Approves CIP Modification	November, 2020
City / County Enter into Cost Share Agreement	Winter 2021
Begin Design	Winter 2021
Approve of Plans and Specifications & Authorize Advertisement for Bid	Fall 2021
Bid Opening	Feb. - April 2022
Accept Bids & Award Contract	Winter 2022
Construction	Spring - Fall 2022

VI. CONCLUSION

Timing is a very crucial element in this proposed project. There are several steps that will need to be completed per the schedule for this project to move forward. First, the City must formally request Wright County to expand the original scope of the 2022 CSAH 7 Pavement Preservation project to include the addition of a trail. Following the formal request, Wright County will revise their Five-Year Construction Plan to include the trail project (the Five-Year Plan is currently in DRAFT form and are subject to public comments until October 6th). The City will be responsible for design, bidding, and project administration per the proposed implementation schedule.

A “Do Nothing” alternative is not a favorable option considering how many people make use of and the safety of pedestrian and bicycle use along the proposed project route. The timing of this trail project must coincide with County Improvements to share the costs to make this project financially viable. Another opportunity will not arise for this project for another 20 years with the Typical County’s road maintenance program. From an engineering perspective, the proposed improvements are necessary, cost-effective, and feasible.

Appendix A: Preliminary Cost Estimate

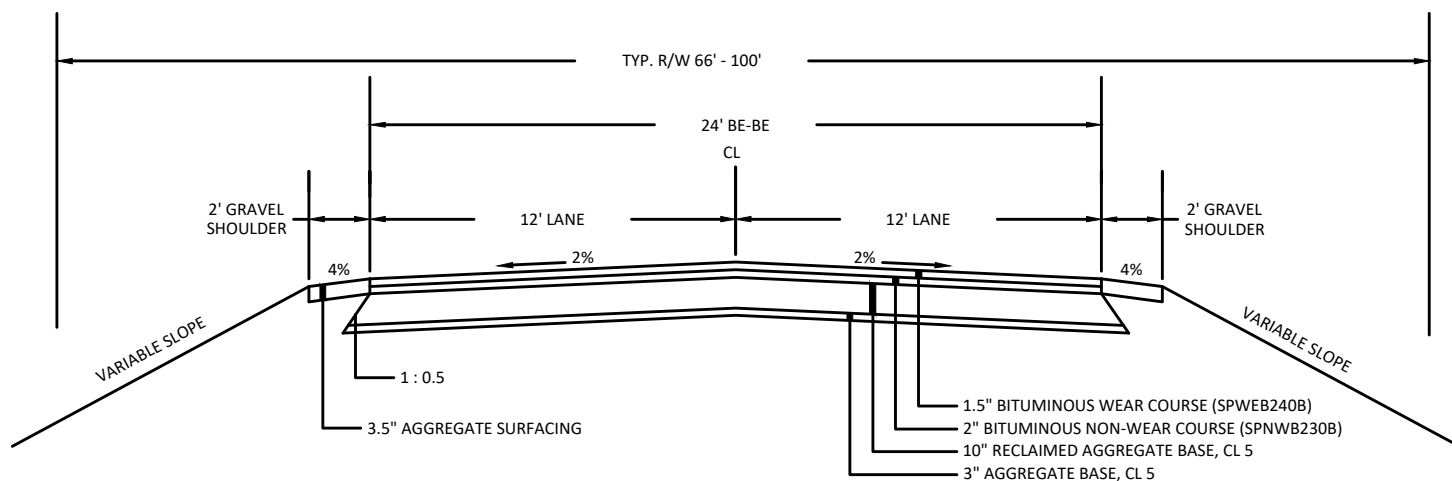
PRELIMINARY COST ESTIMATE
CSAH 7 TRAIL PROJECT
CITY OF HOWARD LAKE, MINNESOTA
BMI Project #W14.112467
9/11/2020

ITEM NO.	ITEM	UNIT	ESTIMATED UNIT PRICE	TOTAL ESTIMATED QUANTITY	TOTAL ESTIMATED COST	COST PARTICIPATION POLICY (COUNTY/CITY)	COST PARTICIPATION BREAKDOWN			
							COUNTY		CITY	
							QUANTITY	COST	QUANTITY	COST
1	MOBILIZATION	LUMP SUM	\$55,000.00	1	\$55,000.00	Pro-rated Share	0.47	\$25,850.00	0.53	\$29,150.00
2	CLEARING	TREE	\$265.00	5	\$1,325.00	0/100		\$0.00	5	\$1,325.00
3	GRUBBING	TREE	\$315.00	5	\$1,575.00	0/100		\$0.00	5	\$1,575.00
4	RECLAIM BITUMINOUS PAVEMENT	SQ YD	\$2.25	8,580	\$19,305.00	100/0	8580	\$19,305.00		\$0.00
5	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	\$5.00	165	\$825.00	0/100		\$0.00	165	\$825.00
6	SALVAGE SIGN	EACH	\$60.00	8	\$480.00	0/100		\$0.00	8	\$480.00
7	SALVAGE MAILBOX	EACH	\$60.00	7	\$420.00	0/100		\$0.00	7	\$420.00
8	COMMON EXCAVATION (P)	CU YD	\$12.00	710	\$8,520.00	0/100		\$0.00	710	\$8,520.00
9	SUBGRADE EXCAVATION (P) (EV)	CU YD	\$15.00	1,500	\$22,500.00	0/100		\$0.00	1,500	\$22,500.00
10	ENGINEERED BORROW - CLAY (P) (CV)	CU YD	\$26.00	1,000	\$26,000.00	0/100		\$0.00	1,000	\$26,000.00
11	COMMON BORROW (P) (CV)	CU YD	\$12.00	2,210	\$26,520.00	0/100		\$0.00	2,210	\$26,520.00
12	SALVAGE & REINSTALL RECLAIMED AGGREGATE BASE (P)	CU YD	\$8.00	710	\$5,680.00	0/100		\$0.00	710	\$5,680.00
13	SHOULDERING AGGREGATE (P)	CU YD	\$28.00	85	\$2,380.00	100/0	85	\$2,380.00		\$0.00
14	GEOGRID	SQ YD	\$4.50	1,450	\$6,525.00	0/100		\$0.00	1,450	\$6,525.00
15	AGGREGATE BASE (CV) CLASS 5	CU YD	\$28.00	700	\$19,600.00	0/100		\$0.00	700	\$19,600.00
16	TYPE SP 12.5 WEARING COURSE MIX (2,B)	TON	\$83.00	1,020	\$84,660.00	100/0	1020	\$84,660.00		\$0.00
17	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	\$81.00	1,020	\$82,620.00	100/0	1020	\$82,620.00		\$0.00
18	TYPE SP 12.5 WEARING COURSE MIX (2,B) - BITUMINOUS TRAIL	TON	\$84.00	400	\$33,600.00	0/100		\$0.00	400	\$33,600.00
19	BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	\$60.00	130	\$7,800.00	0/100		\$0.00	130	\$7,800.00
19	RELOCATE EXISTING HYDRANT	EACH	\$1,700.00	4	\$6,800.00	0/100		\$0.00	4	\$6,800.00
20	6" GATE VALVE AND BOX	EACH	\$2,400.00	4	\$9,600.00	0/100		\$0.00	4	\$9,600.00
21	6" PVC WATERMAIN, C900	LIN FT	\$50.00	50	\$2,500.00	0/100		\$0.00	50	\$2,500.00
22	12" CMP PIPE CULVERTS	LIN FT	\$35.00	130	\$4,550.00	0/100		\$0.00	130	\$4,550.00
23	12" CMP PIPE APRONS	EACH	\$500.00	12	\$6,000.00	0/100		\$0.00	12	\$6,000.00
24	ADJUST EXISTING GATE VALVE	EACH	\$130.00	3	\$390.00	0/100		\$0.00	3	\$390.00
25	ADJUST EXISTING SANITARY CASTING	EACH	\$325.00	4	\$1,300.00	0/100		\$0.00	4	\$1,300.00
26	TRAFFIC CONTROL	LUMP SUM	\$10,000.00	1	\$10,000.00	Pro-rated Share	0.47	\$4,700.00	0.53	\$5,300.00
27	REINSTALL SIGN	EACH	\$225.00	8	\$1,800.00	0/100		\$0.00	8	\$1,800.00
28	FURNISH & INSTALL SIGN	EACH	\$375.00	2	\$750.00	0/100		\$0.00	2	\$750.00
29	RECTANGULAR RAPID FLASH BEACON (RRFB)	LUMP SUM	\$16,000.00	1	\$16,000.00	0/100		\$0.00	1	\$16,000.00
30	REINSTALL MAILBOX	EACH	\$150.00	7	\$1,050.00	0/100		\$0.00	7	\$1,050.00
29	EROSION CONTROL	LUMP SUM	\$17,000.00	1	\$17,000.00	Pro-rated Share	0.47	\$7,990.00	0.53	\$9,010.00
30	4" DOUBLE SOLID YELLOW, MULTICOMP	LIN FT	\$0.50	2,950	\$1,475.00	100/0	2950	\$1,475.00		\$0.00
31	6" SOLID WHITE, MULTICOMP	LIN FT	\$0.50	8,500	\$4,250.00	100/0	8500	\$4,250.00		\$0.00
32	CROSSWALK, MULTICOMP	CROSS FT	\$4.00	385	\$1,540.00	0/100		\$0.00	385	\$1,540.00
30	SALVAGE & REINSTALL COMMON TOPSOIL BORROW (P)	CU YD	\$14.00	875	\$12,250.00	0/100		\$0.00	875	\$12,250.00
31	TURF ESTABLISHMENT	ACRE	\$8,400.00	1.4	\$11,760.00	Pro-rated Share	0.66	\$5,544.00	0.74	\$6,216.00
CONSTRUCTION COST					\$514,350.00			\$238,774.00		\$275,576.00
CONTINGENCIES (10%)					\$51,435.00			\$23,877.40		\$27,557.60
TOTAL CONSTRUCTION COST					\$565,785.00			\$262,651.40		\$303,133.60
LEGAL, ENGINEERING, ADMINISTRATION (20%)					\$113,157.00	Pro-rated Share	0.47	\$53,183.79	0.53	\$59,973.21
TOTAL PROJECT COST					\$678,942.00			\$315,835.19		\$363,106.81

Appendix B: Typical Sections & Preliminary Design

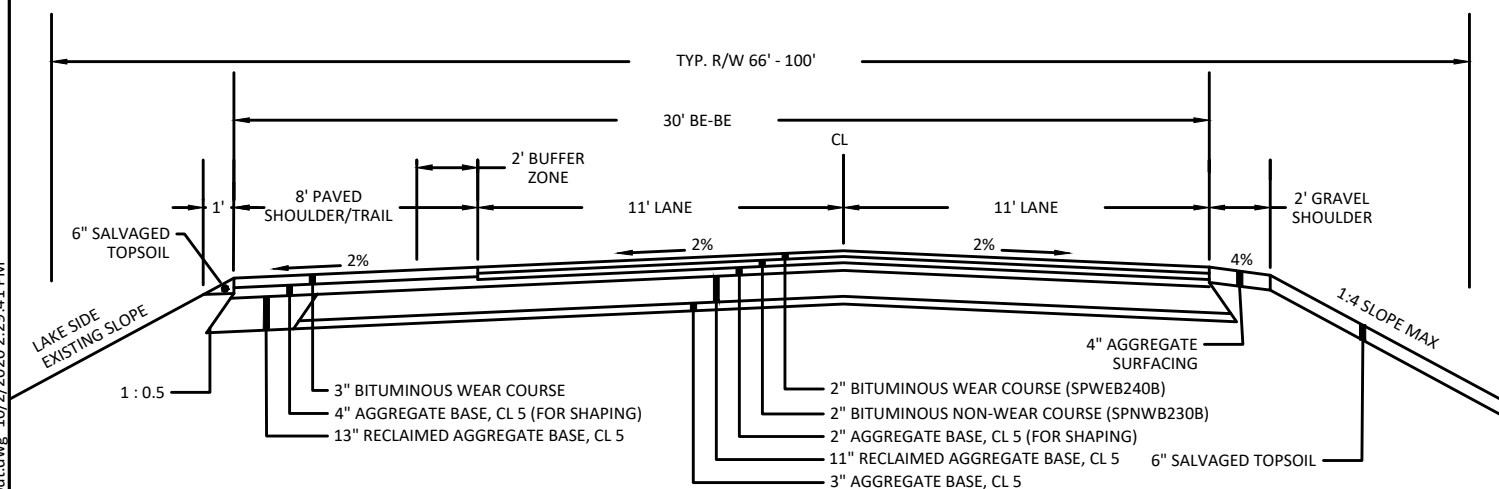
EXISTING TYPICAL

NOT TO SCALE



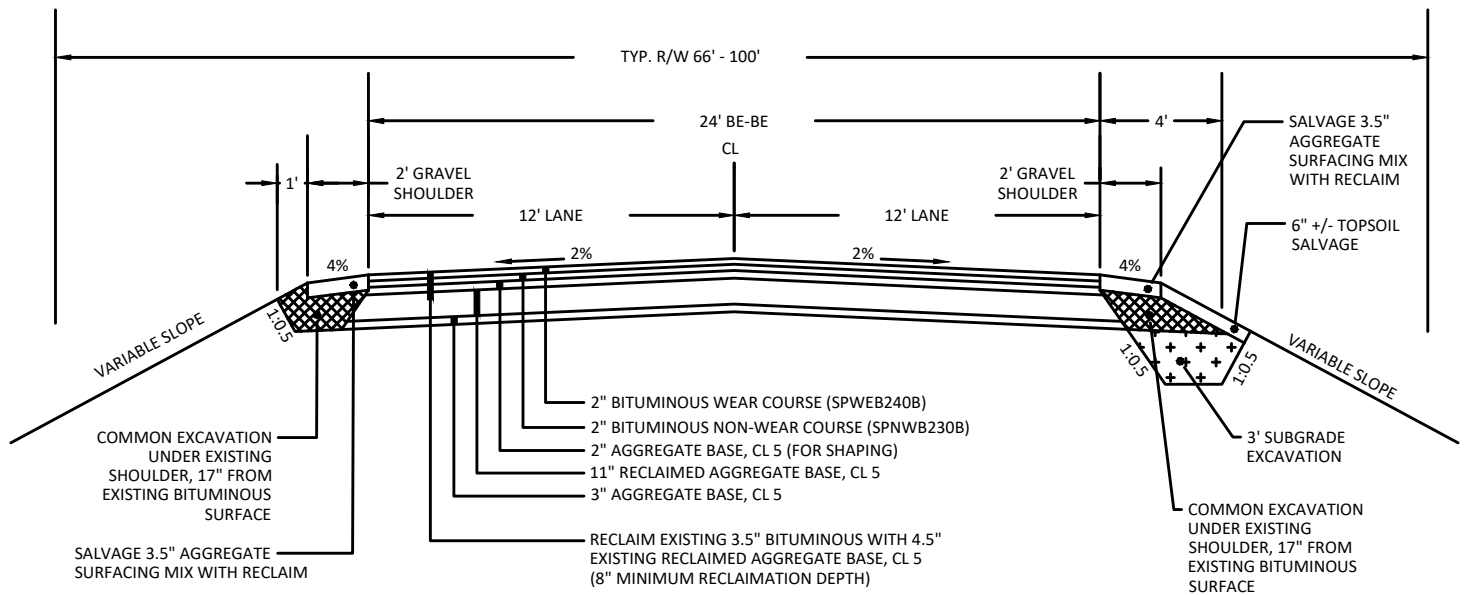
PROPOSED TYPICAL

NOT TO SCALE



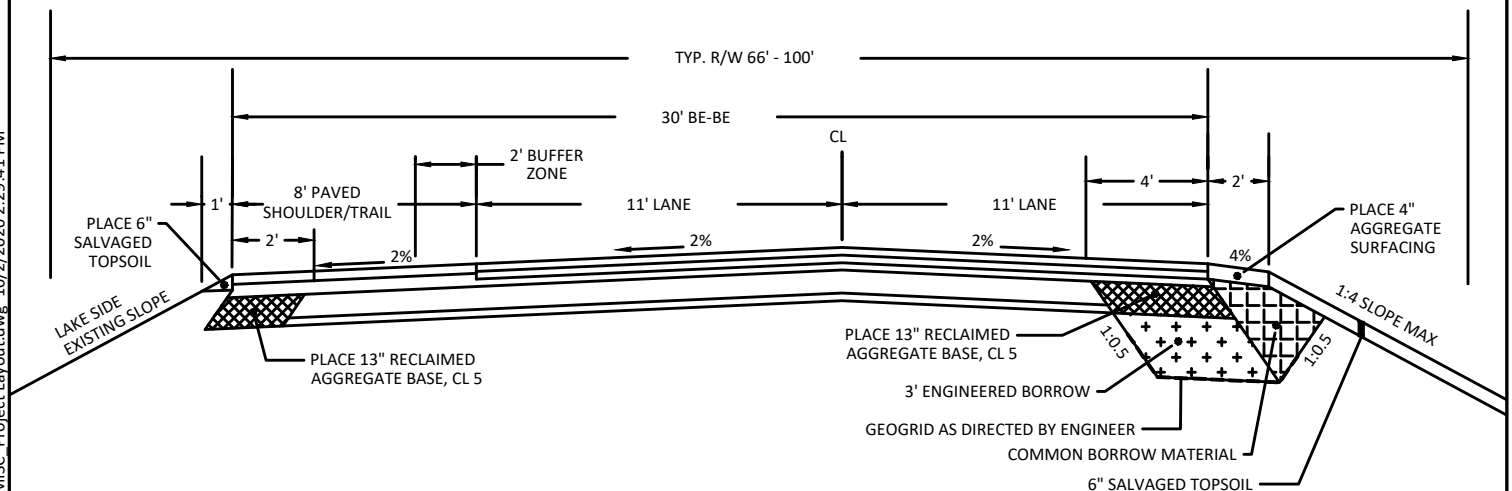
EXISTING CONSTRUCTION TYPICAL DETAIL

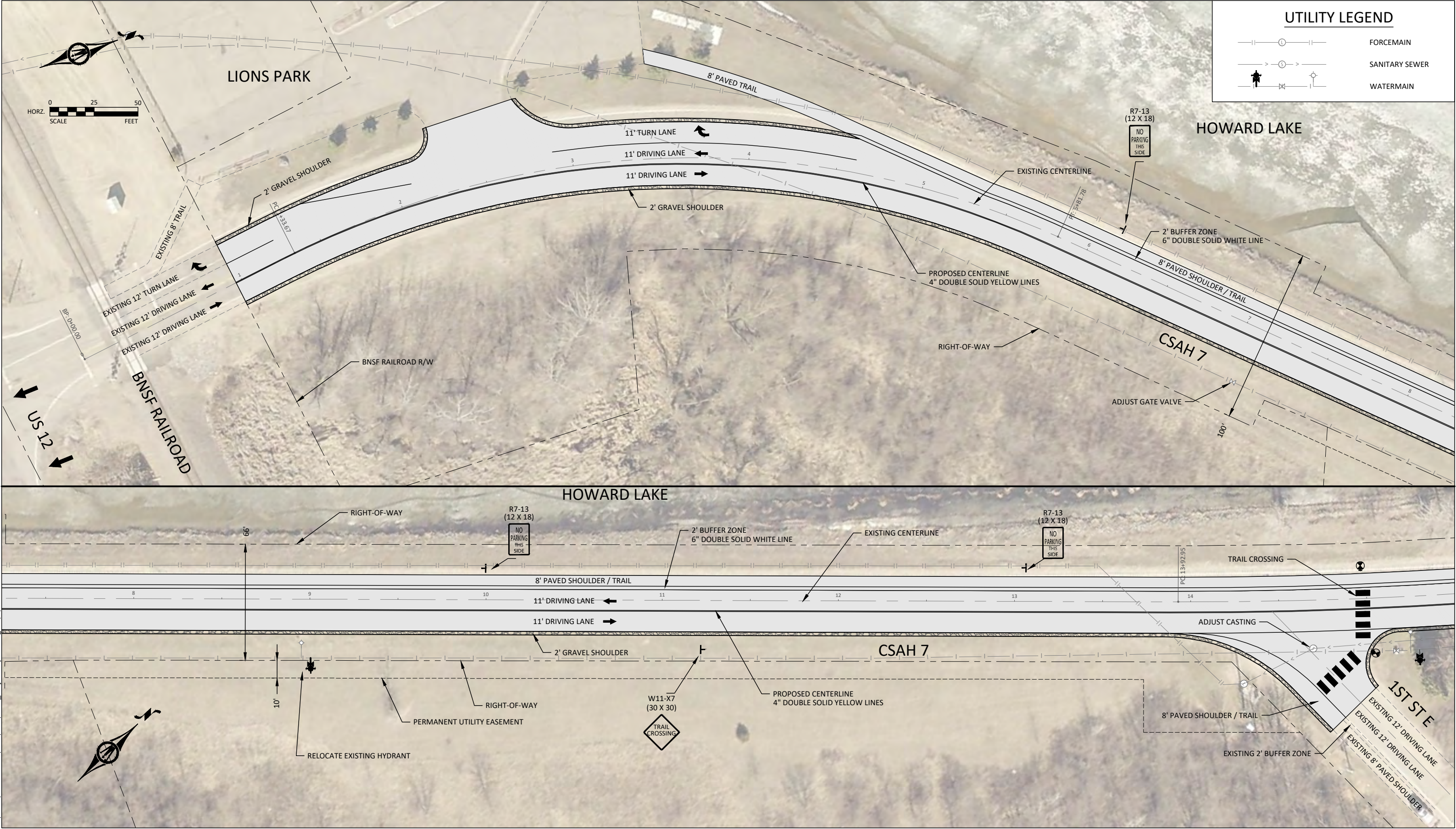
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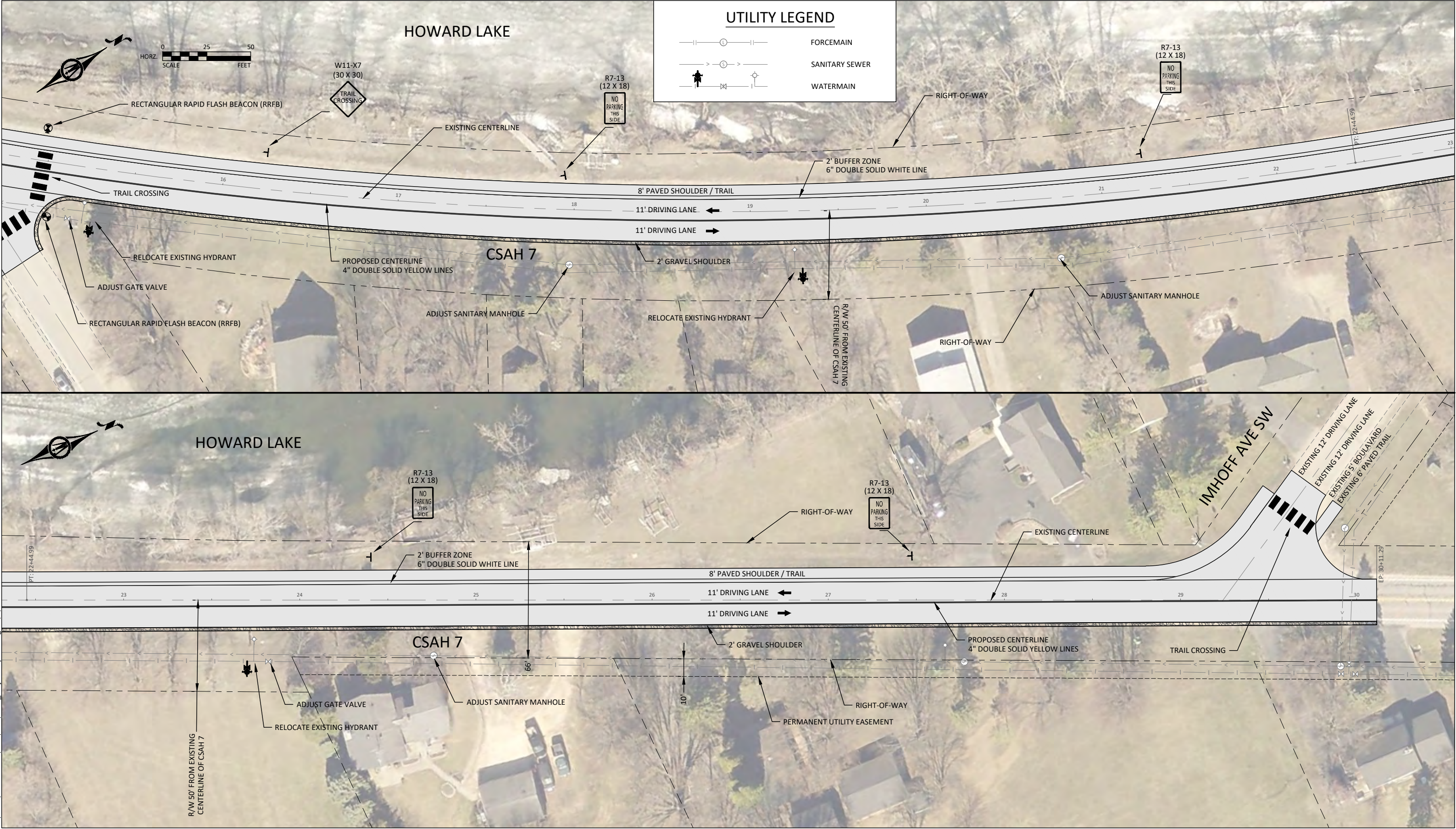


PROPOSED CONSTRUCTION TYPICAL DETAIL

NOT TO SCALE







Appendix C: Wright County Crosswalk Forms



**Wright County
Highway Department**
3600 Braddock Ave NE
Buffalo, MN 55313

Ph: (763)682-7383
Fax: (763)682-7313

VIRGIL HAWKINS, P.E.
Highway Engineer

CHAD HAUSMANN, P.E.
Assistant Highway Engr.

STEVE MEYER
Maintenance
Superintendent

JEREMY CARLSON, P.L.S.
Right-of-Way Agent

SARA BUERMANN, P.E.
Traffic Engineer

Application for Marked Crosswalk Authorization

School District, City, Township or Business: Howard Lake

Route: CSAH 7

Location: North side of intersection of CSAH 7 & 1st St E

Please include map(s)/sketch

- (1) (We) hereby agree to pay all costs associated with the installation and maintenance of the above referenced crosswalk.
- (2) (We) hereby agree to properly train and staff all school crosswalks (when appropriate) during peak crossing periods as provided by Wright County's crosswalk policy (for school zone signing)
- (3) (We) understand that failure to properly install, maintain or staff crosswalks as specified by Wright County's crosswalk policy will be just cause for Wright County to revoke the crosswalk's authorization.
- (4) (We) shall indemnify the County and hold the County harmless from any and all claims related to the engineering, installation, maintenance or staffing of crosswalks currently existing or installed pursuant to this policy.

Return this form to: Sara Buermann, PE
Traffic Engineer
763-682-7391
sara.buermann@co.wright.mn.us

County Use Only

Authorized: _____ Date: _____

Crosswalk Permit Authorization No: _____



Wright County
Highway Department
3600 Braddock Ave NE
Buffalo, MN 55313

Ph: (763)682-7383
Fax: (763)682-7313

VIRGIL HAWKINS, P.E.
Highway Engineer

CHAD HAUSMANN, P.E.
Assistant Highway Engr.

STEVE MEYER
Maintenance
Superintendent

JEREMY CARLSON, P.L.S.
Right-of-Way Agent

SARA BUERMANN, P.E.
Traffic Engineer

Application for Installation of "Pedestrian Crossing" Signing on County Highway

City of: Howard Lake

Address: 625 8th Ave, Howard Lake, MN 55349

City Contact: Josh Halvorson Phone: 320-905-3520

Locations:

Signing Location: CSAH/CR 7

at/from US 12 to Imhoff Ave SW

Signing Location: CSAH/CR _____

at/from _____

Signing Location: CSAH/CR _____

at/from _____

Signing Location: CSAH/CR _____

at/from _____

Please attach map(s) of sign locations.

Applicant must read, complete and sign the reverse side (Certifications of Compliance) prior to sign installation.

Return this form to: Sara Buermann, PE
Traffic Engineer
763-682-7391
sara.buermann@co.wright.mn.us

County Use Only

- ☐ Sign Locations approved per attached maps
- ☐ Sign Locations Field Approved

Authorized: _____ Date: _____

CERTIFICATION OF COMPLIANCE

PEDESTRIAN CROSSING SIGNS

- ☒ The City, at its cost and expense, shall fabricate/purchase and install the signs.
- ☒ The sign panel shall be fabricated with 36"x 36" sheet aluminum and use **Black on Fluorescent Yellow Green, DG3 reflective sheeting**, in accordance with current State/County standards. The sign structure shall meet FHWA breakaway standards.
- ☒ All signs shall be installed per the requirements of the most current Minnesota Manual on Uniform Traffic Control Devices.
- ☒ All sign locations shall be field approved by the County.
- ☒ All future maintenance of the signs (knockdowns, replacement, etc.,) shall be the responsibility of the City, at its cost and expense. Failure to properly maintain the signs per County standards shall be cause for removal.

I (we), the undersigned, herewith accept the terms and conditions for the installation of "PEDESTRIAN CROSSING" signs and agree to fully comply herewith to the satisfaction of the Wright County Highway Department.

I (we), shall indemnify and hold the County harmless from any and all claims related to the installation and maintenance of the Pedestrian Crossing Signs.

The Wright County Highway Department **shall remove** the sign(s) for failure to comply with these terms.

Applicants Signature _____ Date: _____

City: _____

Appendix D: Pavement Design

State Aid 10 Ton ESAL Traffic Forecast Calculator

This ESAL calculator is for use with **default Heavy Commerical Traffic values**; click "User Defined Traffic Values" sheet below if you wish to enter your own Heavy Commercial Traffic values.

Instructions: All yellow boxes require an input value.

Dropdown choices are provided for Base Year (C18), Number of Lanes (C19), and Urban or Rural (C21).

You must click on cells C18, C19, and C21 to access the dropdown choices.

General Information

Date
Forecast Performed by
Name of County or City
Project Number
Project Description
Route Number
Base Year (i.e. opening to traffic)
Number of Lanes (total both directions)
Current AADT
Urban or Rural
Historical AADT (enter a minimum of two years)
Enter oldest traffic data here
Enter second oldest traffic data here
Enter third oldest traffic data here
Enter fourth oldest traffic data here
Base Year AADT
20-Year AADT
35-Year AADT
Growth Rate

9-8-2020	
Dylan Idso	
Wright County / Howard Lake	
W14.112467	
CSAH 7 Trail Project	
CSAH 7	
2022	
2 = typical 2 lane	
2,100	
Rural	
Year	AADT
2007	1,954
2009	2,102
2010	2,084
2012	1,950
2022	2,000
2042	2,200
2057	2,350
0.50%	

Vehicle Type	Vehicle Class %	ESAL Factors	
		Flexible	Rigid
2AX-6TIRE SU	2.45%	0.25	0.24
3AX+SU	0.26%	0.58	0.85
3AX TST	0.10%	0.39	0.37
4AX TST	0.15%	0.51	0.53
5AX+TST	5.61%	1.13	1.89
TR TR, BUSES	0.62%	0.57	0.74
TWIN TRAILERS	0.00%	2.40	2.33
Total	9.19%	NA	NA

20-Year Flexible Forecast (10 Ton) = 682,000
 20-Year Rigid Forecast (10 Ton) = 1,081,000
 35-Year Flexible Forecast (10 Ton) = 1,212,000
 35-Year Rigid Forecast (10 Ton) = 1,918,000

Note: This ESAL Calculator provides reasonable estimation of ESAL's based on accurate AADT values. It is limited to an AADT value of 20,000. For roadways exceeding an AADT of 20,000, it is recommended to use the MnDOT ESAL Forecasting Tool found on MnDOT's Pavement Design web page at:

<http://www.dot.state.mn.us/materials/pvmtdesign/software.html>

For State Aid questions and information concerning this tool, please contact State Aid Pavement Engineer Joel Ulring at joel.ulring@state.mn.us or 651-366-3831.

Revised: 6/19/2018

Flexible Pavement Design, R-Value Method

Ver. 1.2

For Bituminous Pavement With Aggregate Base

Inputs

20 Yr Design Lane BESALs =
Design R-value =

682,000
20.0

Project Number

CSAH 7 Trail Project

Designer

Dylan Idso

Date

9/8/2020

GE Values from R-Value Chart

Minimum Bit (GE) = 8.30
Min. Agg. Base (GE) = 6.00
Total Required GE = 23.76



Calculated Pavement Thickness to Meet GE Requirement

		Thickness (in)	GE	Layer GE
(2360) Wearing Course		3.69	2.25	8.30
(2360) Non-wearing Course		0.00	2.25	0.00
Bituminous Total		3.69	2.25	8.30
		Thickness (in)	GE	Layer GE
Aggregate Base	Class 5, 5Q or 6	6.00	1.00	6.00
Sub Base	Class 3 or 4	12.00	0.75	9.00
Select Granular		0.91	0.50	0.45
	Total	22.60	Total	23.76
	Required*	12.69	Required	23.76

Proposed Pavement Thickness

New Bituminous		Thickness (in)	GE	Layer GE
Wearing Course	Plant Mix HMA [2350(HV & MV)]	2.0	2.25	4.50
Non-wearing Course	Plant Mix HMA [2350(HV & MV)]	2.0	2.25	4.50
New Bituminous Total		4.0		9.00
Left In-place Bituminous *1		Thickness (in)	GE	Layer GE
In-Place Bituminous			0.00	0.00
Condition *2	New			
	Class	Thickness (in)	GE	Layer GE
Aggregate Layer 1	Aggregate Base (Cl. 5,5Q & 6)	16.0	1.00	16.00
Aggregate Layer 2			0.00	0.00
Aggregate Layer 3			0.00	0.00
Select Granular			0.50	0.00
Aggregate Total		16.0		16.00
	Total	20.00	Total	25.00
			Required	23.76

Messages

Total GE: GOOD
Bituminous Thickness: GOOD
Total Aggregate Base Thickness: GOOD

Last Edited 6/5/19

Appendix E: State Aid Requirements

Subp. 24. **Local highway or street department.** "Local highway or street department" means the highway or appropriate department of each county and each urban municipality.

Subp. 25. **Local road research board.** "Local road research board" means a board appointed in accordance with part 8820.3200 to recommend specific research projects to the commissioner.

Subp. 26. **Natural preservation route.** "Natural preservation route" means an existing or proposed roadway that has been designated as a natural preservation route in accordance with Minnesota Statutes, section 162.021, by the commissioner upon petition by a county board and that possesses sensitive or unique scenic, environmental, pastoral, or historical characteristics.

Subp. 27. **Needs report.** "Needs report" means a report of the estimated construction cost required to improve a state-aid system to standards adequate for future traffic on a uniform basis.

Subp. 28. **Paved shoulder.** "Paved shoulder" means a part of a highway which is contiguous to the regularly traveled portion of the highway and is on the same level as the highway.

Subp. 29. **Project development costs.** "Project development costs" are any costs (1) incurred before a contract is awarded and (2) attributable to the development of a project on a designated state-aid route. These costs include, but are not limited to, costs for preparation of environmental documentation, special studies or reports, historical or archaeological reviews, project design, costs of obtaining permits, and public involvement, but does not include costs for acquiring right-of-way.

Subp. 30. **Reconditioning.** "Reconditioning" includes resurfacing, replacement, or rehabilitation of the pavement structure to extend the life of the roadway and effectively address critical safety and operations needs through minor improvements to the existing facility. Reconditioning projects generally utilize the existing horizontal and vertical alignment, may entail minor widening or geometric improvement, and normally require little or no additional right-of-way. Reconditioning may include changes in vertical or horizontal alignment involving no more than 20 percent of the length of the project. Reconditioning may include curb replacement along no more than 20 percent of the length of the project, not including curb replacement for purposes of meeting the Americans with Disabilities Act requirements. Work does not normally extend beyond the existing ditch bottom.

Subp. 31. **Reconstruction.** "Reconstruction" means (1) the replacement of an existing roadway on a similar alignment or (2) the replacement of an existing bridge with a completely new bridge.

Subp. 31a. **Rural.** "Rural" means a roadway that includes ditches and is located in an area that is not presently, nor will it be in the foreseeable future, sufficiently developed to warrant use of an urban design.

Subp. 32. **Screening board.** "Screening board" means the county screening board or municipal screening board appointed in accordance with law and authorized to recommend to the commissioner the size and money needs for each of their state-aid systems.

Subp. 33. **Shared lane.** "Shared lane" means any roadway or travel lane upon which a separate bicycle lane is not designated and which bicycles may legally use, whether or not such facility is specifically designated as a bikeway or bicycle route.

Subp. 34. **Shared use path.** "Shared use path" means a bikeway that is physically separated from a roadway or shoulder by the use of an open space buffer or physical barrier. A shared use path can also be used by a variety of nonmotorized users such as pedestrians, joggers, skaters, and wheelchair users.

Subp. 35. [Repealed, 42 SR 485]

8820.9925 [Repealed, 20 SR 1041]

8820.9926 MINIMUM DESIGN STANDARDS: RURAL AND SUBURBAN UNDIVIDED; RECONDITIONING PROJECTS.

Subpart 1. **Minimum reconditioning standards.** Reconditioning projects for rural or suburban undivided roadways must meet or exceed the minimum dimensions indicated in the following design chart. See part 8820.0200, subpart 30, for the description of activities allowed.

Existing ADT	Statutory or Regulatory Posted Speed	Lane Width (Paved)	Combined Lane (Paved) and Shoulder Width
1-749	45 mph or less	10 feet	11 feet
1-749	50 mph or over	10 feet	12 feet
750 and over	45 mph or less	10 feet	12 feet
750 and over	50 mph and over	11 feet	14 feet

When the road authority has determined that the roadway will be specifically designed to include on-road bicycle facilities, and only if the roadway surface is paved, the appropriate design criteria in the current MnDOT Bikeway Facility Design Manual are recommended for design purposes.

Engineering judgment should be used to choose a lane-width, on-road bicycle facility, or shoulder width dimension other than the widths indicated in the chart. Factors to consider include safety, speed, population/land use, benefit/cost analysis, traffic mix, peak hourly traffic, farm equipment, environmental impacts, terrain limitations, bicycle traffic, pedestrian traffic, on-street parking, intersection and driveway spacing, rights-of-way constraints, vehicle turn lane configuration, sight distance, sight lines, bus routes, other nonmotorized uses, functional classification, or other factors. Dimensions less than those indicated in the chart require a variance in accordance with parts 8820.3300 and 8820.3400.

Widths of bridges to remain in place must equal roadway pavement width. Bridges narrower than these widths may remain in place provided that the bridge does not qualify for federal-aid bridge funds. Bridges to remain must have a load rating factor of at least 0.75 using the AASHTO Manual for Bridge Evaluation, LRFR (load and resistance factor rating) for inventory level.

Any highway that was previously built to state-aid or state standards, that was granted a variance to standards in effect at the time of construction or reconstruction, or that is a trunk highway turnback, may be reconditioned.

The proposed structural design strength must accommodate a minimum of seven tons per axle.

Subp. 2. [Repealed, 23 SR 1455]

Statutory Authority: *MS s 14.386; 162.02; 162.09; 162.155*

History: *20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449; 37 SR 697; 42 SR 485*

8820.9930 [Repealed, 20 SR 1041]

8820.9931 [Repealed, 23 SR 1455]

8820.9935 [Repealed, 20 SR 1041]

Number of Through Lanes	Present ADT	Total Width with No Parking (feet)	Total Width with Parking on One Side (feet)	Total Width with Parking on Both Sides (feet)	Proposed Structural Design Strength (tons)
2-Lane	< 5,000	21	29	37	7
	5,000-10,000	23	31	39	9
	10,000-15,000	23	31	39	9
	≥ 15,000	24	32	40	9
3-Lane	All	34	42	50	9

For ADT less than 150, the widths of bridges to remain must be at least the sum of the lanes. For ADT greater than or equal to 150, the widths of bridges to remain must be at least the sum of the lanes plus half the sum of the shoulders, parking lane, and curb reaction distance. Bridges to remain must have a load rating factor of at least 0.75 using the AASHTO Manual for Bridge Evaluation, LRFR (load and resistance factor rating) for inventory level.

Subp. 3. **Exception.** Any street that was previously built to state-aid or state standards, or that was granted a variance to standards in effect at the time of construction or reconstruction, or that is a trunk highway turnback, but does not meet current standards, may be reconditioned regardless of subparts 1 and 2.

Statutory Authority: *MS s 14.386; 14.389; 162.02; 162.09; 162.155*
History: *20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449; 36 SR 925; 37 SR 697; 42 SR 485*

8820.9950 [Repealed, 20 SR 1041]

8820.9951 MINIMUM DESIGN STANDARDS, ON-ROAD BICYCLE FACILITIES FOR URBAN; RECONDITIONING PROJECTS.

The bicycle facility design standard in this part applies when the road authority has determined that the roadway will be specifically designed to include an on-road bicycle facility.

Reconditioning projects for urban roadways must meet or exceed the minimum dimensions indicated in the following design chart.

Number of Through Lanes and Present Traffic Volume	Design Speed	Lane Width (a)	Parking Lane Width (d)	Proposed Structural Design Strength	Bikeway Design	
	(mph)	(feet)	(feet)	(tons)	(ADT)	(feet)
Two-Lane with ADT <10,000	25-30	10-11 (b)-(c)	7-8	9 (e)	<1,000	SL
					1,000-5,000	WOL 14-16 or BL 5-6
					5,000-10,000	BL 5-6
	35-45	10-11 (b)-(c)	7-8	9 (e)	<500	SL or BL 5-6
					500-10,000	BL 5-6 or PS 8
	50 or over	11-12	8-10	9 (e)	<10,000	BL 5-6 or PS 8 or SUP
Two-Lane With ADT >10,000 (a)	25-30	10-11 (b)-(c)	7-10	9	>10,000	BL 5-6
	35-45	10-11 (b)-(c)	7-10	9	>10,000	BL 5-6 or PS 8 or SUP
	50 or over	11-12	Not allowed	9	>10,000	BL 6 or PS 8-10 or SUP
Four-Lane with ADT <10,000	25-30	10-11 (b)-(c)	7-8	9 (e)	<10,000	WOL 14-16 or BL 5-6
	35-45	10-11 (b)-(c)	7-8	9 (e)	<10,000	BL 5-6
	50 or over	11-12	8-10	9 (e)	<10,000	BL 5-6 or PS 8 or SUP
Four-Lane with ADT >10,000	30-45	10-11 (c)	7-10	9	>10,000	BL 6 or PS 8-10 or SUP
	50 or over	11-12	Not allowed	9	>10,000	BL 6 or PS 8-10 or SUP
Six-Lane		11-12	Not allowed	9	Not allowed	SUP

(SL = shared lane; BL = bicycle lane; WOL = wide outside lane; PS = paved shoulder; SUP = shared use path)

Engineering judgment should be used to choose a lane-width, on-road bicycle facility, or shoulder width dimension other than the widths indicated in the chart. Factors to consider include safety, speed, population/land use, benefit/cost analysis, traffic mix, peak hourly traffic, farm equipment, environmental impacts, terrain limitations, bicycle traffic, pedestrian traffic, on-street parking, intersection and driveway spacing, rights-of-way constraints, vehicle turn lane configuration, sight distance, sight lines, bus routes, other nonmotorized uses,

functional classification, or other factors. Dimensions less than those indicated in the chart require a variance in accordance with parts 8820.3300 and 8820.3400.

(a) Eleven feet minimum is required on four-lane, undivided facilities. Twelve feet should be considered in industrial areas.

(b) Ten feet may be considered where truck and bus volumes are relatively low, rights-of-way are constrained, and design speeds are 35 mph or less.

(c) A combination of all minimum widths for the driving lane, on-road bicycle lane, and parking lane is only permissible with a variance.

(d) In determining the parking lane width, the roadway ADT and the vehicle mix shall be taken into consideration. In commercial or industrial areas, the minimum parking lane width is eight feet.

(e) When ADT is less than 5,000, seven-ton axle load structural design strength is permissible.

A minimum curb reaction of one foot shall be provided unless on-street parking, a bicycle facility, or a wide outside lane are provided adjacent to the curb. The dimensions for wide outside lanes include the curb reaction distance. When a raised median is included in the design of the two-way roadway, a one-foot minimum curb reaction distance to the median is required on either side of the median. Minimum median width is four feet.

For ADT less than 150, the widths of bridges to remain must be at least the sum of the lanes. For ADT greater than or equal to 150, the widths of bridges to remain must be at least the sum of the lanes plus one-half the sum of the shoulders, parking lane, and curb reaction distance. Bridges to remain must have a load rating factor of at least 0.75 using the AASHTO Manual for Bridge Evaluation, LRFR (load and resistance factor rating) for inventory level.

Statutory Authority: *MS s 14.386; 162.02; 162.155*

History: *37 SR 697; 42 SR 485*

8820.9955 [Repealed, 20 SR 1041]

8820.9956 MINIMUM VERTICAL CLEARANCES FOR UNDERPASSES.

Underpass projects must meet or exceed the minimum dimensions indicated in the following design chart.

	Rural-Suburban Design, Vertical Clearance (feet-inches)	Urban Design, Vertical Clearance (feet-inches)
Highway under Roadway Bridge	16-4	14-6
Highway under Railroad Bridge	16-4	14-6
Highway under Pedestrian Bridge	17-4	15-6 (a)
Highway under Sign Structure	17-4	15-6 (a)
Railroad under Roadway Bridge (b)	22-0	22-0

(a) For replacement of skyway structures, the minimum clearance over traveled way is the existing structure clear height.

(b) Variances to the required minimum may be granted by the commissioner of transportation. That approval eliminates the need for a state-aid variance.

Statutory Authority: *MS s 162.02; 162.09*

History: *20 SR 1041; 23 SR 1455; L 1998 c 403 s 29; 24 SR 1885; 29 SR 449*

8820.9960 MR 1995 [Obsolete, MS s 14.47, subd. 6, paragraph (b)]



WRIGHT COUNTY
DEPARTMENT OF HIGHWAYS

FUNDING PARTICIPATION AND CONSTRUCTION AGREEMENT

BETWEEN

THE COUNTY OF WRIGHT
and
THE CITY OF HOWARD LAKE

For

CONSTRUCTION OF IMPROVEMENTS FOR:
ROADWAY WIDENING FOR PEDESTRIAN TRAIL ON SHOULDER, PAVEMENT PRESERVATION, AND
PAVEMENT MARKINGS
ON
County State Aid Highway (CSAH) 7 – From U.S. Highway 12 to Imhoff Avenue SW

December 3, 2020

COOPERATIVE AGREEMENT

THIS AGREEMENT made and entered into by and between the County of Wright, Minnesota, acting by and through its County Board of Commissioners hereinafter referred to as the "County" and the City of Howard Lake, Minnesota, acting by and through its City Council, hereinafter referred to as the "City".

WITNESSETH:

WHEREAS, The County is planning a pavement preservation project in 2022 along CSAH 7 (from U.S. Highway 12 in Howard Lake to Maple Lake); and

The City has completed a Feasibility Report, dated October 2, 2020 that has evaluated the construction of an on-road trail along CSAH 7 to connect the existing City trail segments of the Lions Park, Terning Trails, and Imhoff Avenue SW – for bicycle and pedestrian safety; and

The City council unanimously approved, at their October 20, 2020 council meeting, to accept the Feasibility Report and directed City staff to move forward with a cost share agreement with the County; and

The County has included the CSAH 7 Trail Project by the City in their updated Five-Year Plan & Map to be constructed in the year 2021; and

WHEREAS, it has been agreed that the proposed CSAH 7 Trail Project identified in the City's Feasibility Report will be included in one (1) contract to be administered by the City and any items not specifically addressed in this agreement, the City has agreed to participate in the cost in accordance with the County's Cost Participation Policy, and

NOW THEREFORE, IT IS MUTUALLY AGREED AND UNDERSTOOD THAT:

Article 1

The City's Engineer shall prepare construction plans meeting the appropriate County and State Aid standards, and the plans & specifications are subject to review and approval by the County Engineer's office. The City will be responsible for community/public engagement for the project and will notify the County of these efforts to allow the opportunity for County staff to participate.

Article 2

The CSAH 7 Trail Project limits will be generally in accordance with the scope identified in the Feasibility Report (copy attached to this Agreement), subject to adjustments as needed when detailed construction plans are prepared.

Article 3

The cost share for both the City and County will be generally as identified in the City's Feasibility Report, prepared by Bolton & Menk, Inc. and dated October 2, 2020. However, the County's Cost Participation Policy shall take precedence in any cases of items not properly identified and/or not addressed in the report.

Article 4

The City will provide engineering services for design and construction administration and inspection. The County will not participate in any engineering costs incurred by the City that are necessary for the City to assess their portion of the project costs (Feasibility Studies, community/public engagement, legal expenses, etc.). The County will reimburse the City for engineering services for the County's portion of the project based upon the following table. The final reimbursement will be computed using the appropriate % below times the County's portion only of the contract construction cost.

From	\$ 0	thru \$50,000	up to 18%	of County's Portion
Over	50,000	thru 100,000	up to 16%	of County's Portion
Over	100,000	thru 250,000	up to 13%	of County's Portion
Over	250,000	thru 500,000	up to 11%	of County's Portion
Over	500,000	thru Indefinite	up to 10%	of County's Portion

The City Engineer shall prepare a preliminary estimate of construction cost for the project. The preliminary cost estimate shall identify both the City's share and County's share of cost for the project based upon this funding agreement. This preliminary construction cost estimate is shown in Appendix B of this Agreement.

It is intended that the work for this project is to be done by a contractor on a unit price basis through a contract duly let by the City. When the City awards a contract, the City will prepare a new estimate of the County's share of the construction cost based on the unit prices bid by the City's contractor. A copy of such revised cost estimate will be forwarded to the County Engineer or his designee.

Article 5

It is agreed that the new on-road trail (highway shoulder) will be maintained by the County in a manner consistent with normal maintenance of a paved shoulder. If it is desired that additional maintenance is needed more than what the County would normally provide for a paved shoulder, then the City shall provide this maintenance with City staff at their own cost. The County agrees to maintain the signs and pavement markings installed for the on-road trail as part of the project.

Article 6

Upon award of the City contract the City will invoice the County for 95% of the amount of the County cost share. The County will forward this amount to the City within 60 calendar days from the date of the invoice. The remaining amount of the County's cost share of the work will be invoiced to the County upon completion of the work.

Upon signing the construction contract between the contractor and the City, a copy of the bid schedule breakdown of the County's portion of the project, & copy of the signed contract and performance bond, shall be forwarded to the County. Upon 100% completion of the work, the City shall forward to the County a copy of a cost breakdown identifying the County's cost participation, based on this agreement.

Whenever it appears the cost of the County participation construction covered under this Agreement is about to exceed the County's portion of the contract, the City shall notify the County Engineer for authorization prior to performance of the additional County cost participation construction. Notification shall include an estimate in the amount of additional funds necessary to complete the County cost participation construction including engineering costs and reason(s) why the current amount encumbered will be exceeded. The County shall, upon its approval of the additional County cost participation construction, agree that this action will have the effect of amending this Agreement to include the County's share of the costs of the additional construction.

Should the City cause the performance of additional contract construction which would otherwise qualify for County cost participation covered under this Agreement, but for which the County has not previously authorized, that additional contract construction is done at the City's expense.

The City shall provide to the County Engineer an as built plan of the roadway improvements. The as built plans shall be submitted to the County within three months of the completion of the project.

The City shall keep records and accounts that enable it to provide the County with the following prior to final payment to the City by the County:

- 1) Copies of the City contractor's invoice(s) covering all contract construction.
- 2) Copies of the endorsed and canceled City warrant(s) or check(s) paying for final contract construction, or computer documentation of the warrant(s) issued certified by an appropriate City official that final construction contract payment has been made.
- 3) Copies of all construction contract change orders and/or supplemental agreements.
- 4) A certification form signed by the City's Engineer in charge of the contract construction attesting to the following:
 - a) Satisfactory performance and completion of all contract construction in accordance with County approved City plans, specifications and/or special provisions.
 - b) Acceptance and approval of all materials furnished for the County cost participation construction covered under this Agreement relative to compliance of those materials to MnDOT's current edition of the "Standard Specifications for Construction".
 - c) Full payment by the City to its contractor for all contract construction.

Article 7

The City shall be responsible for all construction inspection and testing of materials (Including required testing at intervals outlined in the latest MnDOT State Aid for Local Transportation Materials Control Schedule, which must be included in the project proposal), quantities, and contractor performance (Including submittal of Change in Construction Status forms, and all other required forms, to be submitted to the County for review and approval) for the road improvement project. Weekly Construction Diary forms should be submitted to the County.

Article 8

The City will complete an application for a Marked Crosswalk authorization from the County for the proposed crosswalk across CSAH 7 at 1st Street East.

Article 9

The City shall be responsible for any temporary right-of-way needed to accommodate the construction of the CSAH 7 Trail Project. It is not anticipated that any permanent right-of-way will be needed for the project.

Article 10

The City shall indemnify, save and hold harmless the County and all its agents and employees of any form against all claims, demands, actions or causes of action of whatever nature or character arising out of or because of the execution or performance of the work provided for herein to be performed by the City. The County shall indemnify, save and hold harmless the City and all its agents and employees of any form against all claims, demands, actions or causes of action of whatever nature or character arising out of or because of the execution of performance of the work provided for herein to be performed by the County.

Article 11

It is further agreed that any and all full-time employees of the County and all other employees of the County engaged in the performance by any work or services required or provided for herein to be performed by the County shall be considered employees of the County only and not of the City and that any and all claims that may or might arise under Workmen's Compensation Act of the State of Minnesota on behalf of said employees while so engaged and any and all claims made by any third parties as a consequence of any act or omission on the part of said County employees while so engaged on any of the work or services provided to be rendered herein shall be the sole obligation and responsibility of the County.

It is further agreed that any and all full-time employees of the City and all other employees of the City engaged in the performance by any work or services required or provided for herein to be performed by the City shall be considered employees of the City only and not of the County and that any and all claims that may or might arise under Workmen's Compensation Act of the State of Minnesota on behalf of said employees while so engaged and any and all claims made by any third parties as a consequence of any act or omission on the part of said City employees which so engaged on any of the work or services provided to be rendered herein shall be the sole obligation and responsibility of the City.

Article 12

Before this agreement shall become binding and effective it shall be approved by the City Council of Howard Lake and it shall also be approved by the County Board and such other officers as law may provide. IN TESTIMONY WHEREOF the parties have duly executed this agreement by their duly authorized officers and caused their respective seals to be hereunto affixed.

COUNTY OF WRIGHT

Recommended for Approval:

County Engineer

APPROVED:

Chair, County Board

County Administrator

County Attorney

Date

CITY OF HOWARD LAKE

Recommended for Approval:

City Engineer, Howard Lake

APPROVED:

Mayor, City of Howard Lake

City Administrator, City of Howard Lake

City Attorney, City of Howard Lake

Date

WRIGHT COUNTY 5 YEAR HIGHWAY CONSTRUCTION PROGRAM - YEAR 2021

ROUTE	TERMINI	PROJECT LENGTH (MILES)	CONSTRUCTION TYPE		STATE AID REGULAR	STATE AID MUNICIPAL	LOCAL	Local Option Sales Tax	ESTIMATED PROJECT COST
				FEDERAL FUNDS					
14	US 12 to TH 55	5.0	Pavement Preservation		\$ 1,600,000				\$ 1,600,000
13	So. Co. Line to 30	4.5	Pavement Preservation		\$ 900,000				\$ 900,000
37	M.L.city limits to TH 25	7.9	Pavement Preservation		\$ 2,500,000				\$ 2,500,000
120	44 to 34	2.3	Pavement Preservation				\$ 460,000		\$ 460,000
44	33 to 20	1.9	Pavement Preservation				\$ 370,000		\$ 370,000
									\$ -
17	So.City limits to 30 E	1.7	Pavement Preservation		\$ 500,000				\$ 500,000
35	WB One-Way Pair	0.7	Pavement Preservation		\$ 700,000				\$ 700,000
19	38 to 39	2.4	Pavement Preservation		\$ 760,000				\$ 760,000
7	US Hwy.12 to Imhoff	0.6	Reconstruct/H.L.City Trail			\$ 320,000			\$ 320,000
39	Odean to 42	1.4	Reconstruct (Stage 2)					\$ 3,000,000	\$ 3,000,000
118	37 to 18	1.8	Reconstruction					\$ 4,000,000	\$ 4,000,000
60	Montrose	0.4	Reconstruction				\$ 1,000,000		\$ 1,000,000
5,6,30,30	Judicial Ditch 10 Proj.		Culvert Improvements				\$ 500,000		\$ 500,000
30	Tiger Dr. - Delano		Mini-Roundabout				\$ 300,000		\$ 300,000
TOTAL CONST. COST:				\$ -	\$ 6,960,000	\$ 320,000	\$ 2,630,000	\$ 7,000,000	\$ 16,910,000

18-Nov-20

WRIGHT COUNTY 5 YEAR HIGHWAY CONSTRUCTION PROGRAM - YEAR 2022

ROUTE	TERMINI	PROJECT LENGTH (MILES)	CONSTRUCTION TYPE		STATE AID REGULAR	STATE AID MUNICIPAL	LOCAL	Local Option Sales Tax	ESTIMATED PROJECT COST
				FEDERAL FUNDS					
5	South Co. line to 35	12.0	Pavement Preservation		\$ 2,400,000				\$ 2,400,000
7	Imhoff Ave (H.L.) to Maple Lake	12.9	Pavement Preservation		\$ 2,675,000				\$ 2,675,000
124	CSAH 8 to 109	2.0	Pavement Preservation				\$ 450,000		\$ 450,000
100	US 12 to CSAH 3	6.0	Pavement Preservation				\$ 1,650,000		\$ 1,650,000
141	W. Co. Line to CR 100	0.5	Pavement Preservation				\$ 120,000		\$ 120,000
142	W. Co. Line to CR 100	0.7	Pavement Preservation				\$ 160,000		\$ 160,000
37	18 to 19	2.2	Reconstruction					\$ 6,000,000	\$ 6,000,000
19	Btwn 1-way pairs		Reconstruct/Expansion	\$ 1,500,000				\$ 1,500,000	\$ 3,000,000
19	TBD - St.Mich (Corr.Study)	TBD	3-Lane/Pave.Preserv.					\$ 1,000,000	\$ 1,000,000
35/117	Intersection		Safety Project	\$ 225,000	\$ 25,000				\$ 250,000
37/117	Intersection		Safety Project	\$ 225,000	\$ 25,000				\$ 250,000
75/8	Intersection		Safety Project	\$ 225,000	\$ 25,000				\$ 250,000
35/Dague	Intersection (Buffalo)		Safety		\$ 1,000,000				\$ 1,000,000
TOTAL CONST. COST:				\$ 2,175,000	\$ 6,150,000	\$ -	\$ 2,380,000	\$ 8,500,000	\$ 19,205,000

NOTE: SUBJECT TO CHANGE BASED ON ACTUAL REVENUES APPROVED IN 2022 BUDGET, FUNDING AVAILABLE AND BID PRICES

18-Nov-20

WRIGHT COUNTY 5 YEAR HIGHWAY CONSTRUCTION PROGRAM - YEAR 2023

ROUTE	TERMINI	PROJECT LENGTH (MILES)	CONSTRUCTION TYPE		STATE AID REGULAR	STATE AID MUNICIPAL	LOCAL	Local Option Sales Tax	ESTIMATED PROJECT COST
				FEDERAL FUNDS					
3	35 to 129 So. Junction	5.0	Pavement Preservation		\$ 1,500,000				\$ 1,500,000
22	So. Co. Line to CSAH 18	1.0	Pavement Preservation		\$ 400,000				\$ 400,000
125	4 to 5	2.0	Pavement Preservation				\$ 400,000		\$ 400,000
35	Calder to Jamison	7.6	Pavement Preservation		\$ 1,620,000		\$ 1,900,000		\$ 3,520,000
35	Jamison to 1-way pr.	1.6	Reconstruct/Expansion					\$ 4,800,000	\$ 4,800,000
75	Otter Cr. To 39E	2.8	Pavement Preservation		\$ 2,100,000				\$ 2,100,000
19	TBD-Hanover (19 Corr.Study)	TBD	Right of Way Acquisition					\$ 1,500,000	\$ 1,500,000
19	19 & 39 Intersection - Otsego		Intersection Safety				\$ 500,000	\$ 1,000,000	\$ 1,500,000
									\$ -
									\$ -
									\$ -
									\$ -
TOTAL CONST. COST:				\$ -	\$ 5,620,000	\$ -	\$ 2,800,000	\$ 7,300,000	\$ 15,720,000

NOTE: SUBJECT TO CHANGE BASED ON ACTUAL REVENUES APPROVED IN 2023 BUDGET, FUNDING AVAILABLE AND BID PRICES

18-Nov-20

WRIGHT COUNTY 5 YEAR HIGHWAY CONSTRUCTION PROGRAM - YEAR 2024

ROUTE	TERMINI	PROJECT LENGTH (MILES)	CONSTRUCTION TYPE		STATE AID REGULAR	STATE AID MUNICIPAL	LOCAL	Local Optioin Sales Tax	ESTIMATED PROJECT COST
				FEDERAL FUNDS					
32	CSAH 14 to TH 55	3.3	Preservation		\$ 910,000				\$ 910,000
37	CSAH 5 to CSAH 6	2.1	Preservation		\$ 580,000				\$ 580,000
8	Waverly to S. Co. Line	5.9	Preservation		\$ 1,800,000				\$ 1,800,000
135	CR 101 to N. Co. Line	1.5	Preservation				\$ 350,000		\$ 350,000
106	CSAH 11 to TH 25	5.9	Preservation				\$ 1,500,000		\$ 1,500,000
148	83 to 0.65 mi. north	0.7	Preservation				\$ 200,000		\$ 200,000
41	25 So. To 25 No.	0.8	Preservation				\$ 300,000		\$ 300,000
137*	94 to Marx Ave. NE	1.0	Reconstruction					\$ 2,500,000	\$ 2,500,000
19*	Hanover (20 to 5th)	0.5	Reconstruction					\$ 4,500,000	\$ 4,500,000
83	TH 25 RAB - LPP		Intersection	\$ 1,000,000	\$ 1,800,000		\$ 500,000		\$ 3,300,000
5	Bridge		Bridge Replacement	\$ 1,280,000	\$ 620,000				\$ 1,900,000
TOTAL CONST. COST:				\$ 2,280,000	\$ 5,710,000	\$ -	\$ 2,850,000	\$ 7,000,000	\$ 17,840,000

NOTE: SUBJECT TO CHANGE BASED ON ACTUAL REVENUES APPROVED IN 2024 BUDGET, FUNDING AVAILABLE AND BID PRICES

* = SUBJECT TO EXTENSTION OF THE LOCAL-OPTION SALES TAX FOR TRANSPORTATION, CURRENTLY SET TO EXPIRE DECEMBER 31, 2022

18-Nov-20

WRIGHT COUNTY 5 YEAR HIGHWAY CONSTRUCTION PROGRAM - YEAR 2025

ROUTE	TERMINI	PROJECT LENGTH (MILES)	CONSTRUCTION TYPE		STATE AID REGULAR	STATE AID MUNICIPAL	LOCAL	Local Optioin Sales Tax	ESTIMATED PROJECT COST
				FEDERAL FUNDS					
39	8 to 75	9.8	Pavement Preservation		\$ 3,000,000				\$ 3,000,000
									\$ -
12	US12 to CR 108	5.4	Pavement Preservation		\$ 2,200,000				\$ 2,200,000
									\$ -
6	So. Co. Line to US 12	6.2	Pavement Preservation		\$ 480,000		\$ 2,000,000		\$ 2,480,000
7	Bridge		Bridge		\$ 1,200,000		\$ 500,000		\$ 1,700,000
36*	94 to 101	2.2	Reconstruction					\$ 9,000,000	\$ 9,000,000
TOTAL CONST. COST:				\$ -	\$ 6,880,000	\$ -	\$ 2,500,000	\$ 9,000,000	\$ 18,380,000

NOTE: SUBJECT TO CHANGE BASED ON ACTUAL REVENUES APPROVED IN 2025 BUDGET, FUNDING AVAILABLE AND BID PRICES

*** = SUBJECT TO EXTENSION OF THE LOCAL-OPTION SALES TAX FOR TRANSPORTATION, CURRENTLY SET TO EXPIRE DECEMBER 31, 2022**

2021

Pavement Preservation  26 Miles

Reconstruction

Culvert

Roundabout

2022

Pavement Preservation

34 Miles

Reconstruction

Safety/Spot Reconstruction
Traffic Control

Roundabout

2023

Pavement Preservation  18 Miles

Reconstruction

Safety/Spot Reconstruction
Traffic Control

ROUNDAABOUT

2024

Pavement Preservation 20 Miles

Reconstruction

Safety/Spot Reconstruction
Traffic Control

ROUNDAABOUT

BRIDGE

2025

Pavement Preservation  21 Miles

Reconstruction

Safety/Spot Reconstruction
Traffic Control

